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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stein A. Lundby

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EXAMINER

CHAN, RICHARD

ART UNIT

PAPER NUMBER

2648

NOTIFICATION DATE

DELIVERY MODE

01/02/2013

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com

Office Action Summary	Application No. 09/782,751	Applicant(s) LUNDBY, STEIN A.	
	Examiner RICHARD CHAN	Art Unit 2648	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2012.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1-4, 11-26, 28, 29, 33, 34, 38, 39 and 42-57 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☒ Claim(s) 11, 12, 16, 18, 22, 24 and 44-47 is/are allowed.
- 7) ☒ Claim(s) 1-4, 13-15, 17, 19-21, 23, 25, 26, 28, 29, 33, 34, 38, 39, 42, 43, and 48-57 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 3) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 4) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/14/12 has been entered.

Response to Arguments

2. Applicant's arguments filed 12/14/12 have been fully considered but they are not persuasive.

Regarding the rejection of claims 1-4, 13-15, 17, 19-21, 23, 25-26, 28-29, 33-34, 38-39, 42-43 and 48-57, the applicant has argued that the examiner's Office Action maintains that Tiedemann reference discloses a forward link common channel that "is shared by a plurality of remote stations." (Office Action, pages 2-3.) Applicant continues to disagree. However, the Applicant has amended claim 1 to recite a "forward link common **control** channel." Applicant respectfully submits that Tiedemann fails to disclose this subject matter.

The examiner acknowledges the applicant's amendment made to the current set of claims, however disagrees with the applicant's assertion that the amendment has

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overcome the prior art cited, specifically Tiedemann (US 6,396,867). The examiner wishes to point the applicant to portions of the specification previously cited, specifically **Col.7 line 45-50**, which had been cited examiner. The passages recite specifically *"The forward link power control mechanism of the present invention operates two power control loops. The first power control loop, the closed loop, **adjusts the transmission power** of the base station such that the quality of the filtered amplitude of the reverse link power control bits received at the remote station **is maintained at a target energy level.**"*

The applicant has actually amended the claim language to recite the same exact term as recited by the Tiedemann reference, "forward link **control** channel". Therefore, the examiner does not agree with the applicant's assertion regarding the amendment made to claims.

Regarding applicant's arguments to claim 4 recites "a transmitter to transmit the forward link power control instruction on a forward link common control channel, wherein the forward link common control channel is shared by a plurality of remote stations." As discussed above, Tiedemann does not disclose this claimed subject matter. Accordingly, Applicant respectfully submits that amended claim 4 is allowable.

However, the examiner respectfully points the applicant to the Tiedemann reference, specifically Col.6 line 26-29 which recite transmitting the power control bits at an evenly spaced intervals can result in the base station sending out power control bits to multiple remote stations at the same time. While the Tiedemann reference does not

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specifically use the term “common channel”, Tiedemann clearly teaches wherein the transmitting power control bits are sent by the base station is performed at the SAME TIME to MULTIPLE remote stations.

The Tiedemann, Col.8 line 25-29, reference continues to disclose wherein the base stations are able to communicate with multiple remote stations, however only one remote station is shown for simplicity.

Tiedemann continues to disclose wherein the base station is able to directly adjust the target energy for multiple mobile stations 6 wherein the mobile stations need to operate at a higher FERs.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4, 13-15, 17, 19-21, 23, 25, 26, 28, 29, 33, 34, 38,39, and 42, 43, 48-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Tiedemann (US 6,396,867)

Regarding claims 1, 13, 17, 19, 23, 25 Tiedemann teaches a remote station apparatus (**element 6**) comprising: a link quality estimation unit operative to generate a link quality estimate in response to a forward link power control instruction received on a forward link channel **10**, wherein the forward link common control channel is shared by

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a plurality of remote stations **(Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits and Col.6 line 26-30: transmitting the power control bits at an evenly spaced intervals can result in the base station sending out power control bits to multiple remote stations at the same time.)**

a power control unit coupled to the link quality estimation unit, the power control unit operative to generate a reverse link power control instruction in response to the link quality estimation, **(Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)**

wherein the reverse link power control instruction includes one or more commands configured to adjust a transmit power of the forward link at a base station. **(Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)**

Regarding claims 2, 14, 20, Tiedemann discloses the apparatus of claims 1, 13, and 19 respectively, wherein the apparatus controls transmission power of the reverse link power control instruction on a reverse link in response to the forward link power control instruction **(Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)**

Regarding claims 3, 15, 21, Tiedemann discloses the apparatus of claims 1, 13, and 19 respectively; wherein the apparatus transmits the reverse link power control instruction

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on a reverse link. **(Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)**

Regarding claims 4, 26, Tiedemann discloses the apparatus (element 6) Tiedemann continues to disclose wherein a determination unit **120** operative to determine a reverse link power control instruction received on a reverse link for base station transmission on a forward link; **(Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)** and

an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a power level of the a forward link power control instruction based on the reverse link power control instruction; **(Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)** and

a transmitter operative to transmit the forward link power control instruction on a forward link common channel. **(Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations)** and **(Abstract)** and **(Col.7 line 31-57)**

Regarding claims 28 and 33 Tiedemann discloses the apparatus of claims 1 and 13, Tiedemann continues to disclose wherein the link quality estimation unit is operative to generate the link quality estimation based on a received power level of the forward link power control instruction. **(Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations)**

Regarding claim 29, Tiedemann discloses the apparatus (element 6) comprising of claim 4, Tiedemann continues to disclose wherein the forward link power control instruction was received on a forward link common channel. **(Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)**

Regarding claims 34 and 39, Tiedemann discloses the method of claim 17 and 23 respectively, Tiedemann continues to disclose wherein the determination comprises extracting the reverse link power control instruction from a signal received on the reverse link. **(Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)**

Regarding claim 38, Tiedemann discloses the apparatus of claim 19, Tiedemann continues to disclose wherein the means for generating a link quality estimation unit are for generating the link quality estimation based on a received power level of the forward link power control instruction. **(Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)**

Regarding claim 42, Tiedemann teaches a remote station apparatus 6, Tiedemann continues to disclose wherein a link quality estimation unit 120 operative to generate a link quality estimation in response to a forward link power control instruction received on

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a forward link, wherein the forward link common channel is shared by a plurality of remote stations. **(Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits)**

a power control unit coupled to the link quality estimation unit, the power control unit operative to generate a reverse link power control instruction in response to the link quality estimation; **(Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations)** and

one or more antennas configured to receive the forward link power control instruction on the forward link, wherein the reverse link power instruction includes one or more commands configured to adjust a transmit power of the forward link at a base station. **(Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)**

Regarding claim 43, Tiedemann teaches a base station apparatus, comprising:

a determination unit operative to determine a reverse link power control instruction received on a reverse link for base station transmission on a forward link; **(Col.7 line 19-26; quality of the channel is inferred from the measured amplitude of the reverse link power control bits and Col.6 line 26-30: transmitting the power control bits at an evenly spaced intervals can result in the base station sending out power control bits to multiple remote stations at the same time.)**

an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a transmission power level of a forward link power control instruction

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based on the reverse link power control instruction, and one or more antennas configured to receive the reverse link power control instruction on the reverse link;

(Col.6 line 13-16; reverse line power control bits used to adjust the transmission power of the base stations) and

a transmitter operative to transmit the forward link power control instruction on a forward link channel. **(Col.4 line 58-65; reverse line power control bits used to adjust the transmission power of the base stations) and (Abstract) and (Col.7 line 31-57)**

Regarding claims 48-53, Tiedemann discloses the apparatus of claims 1, 4, 13, 17, 19, and 23 respectively, Tiedemann continues to disclose wherein the forward link power control instruction and other forward link power control instructions for the plurality of remote stations are multiplexed on the forward link channel. (Col.14 line 56-59; wherein forward link power control bits can be multiplexed on the forward traffic channel and the Watanabe reference, specifically claim 7, specifically discloses wherein a forward link common channel is shared by a plurality of remote stations; **(Col.12 line 20-33; forward link channel is shared by a plurality of mobile nodes receiving power control information from base station)**

Regarding claims 54-57, Tiedemann discloses the machine-readable medium of claim 25, Tiedemann continues to disclose wherein the forward link power control instruction for the remote station and another forward link power control instruction for

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the at least one other remote station are multiplexed on the forward link channel.

(Col.14 line 56-59; wherein forward link power control bits can be multiplexed on the forward traffic channel while the Watanabe reference, specifically claim 7, specifically discloses wherein a forward link common channel is shared by a plurality of remote stations; **(Col.12 line 20-33; forward link channel is shared by a plurality of mobile nodes receiving power control information from base station)**)

Allowable Subject Matter

5. Claims 11, 12, 16, 18, 22, 24, 44, 45, 46, and 47 are allowed.

6. The following is an examiner's statement of reasons for allowance: The prior art discloses an apparatus comprising: a determination unit operative to determine a reverse link power control instruction received on a reverse link for base station transmission on a forward link; an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a transmission power level of a forward link power control instruction based on the reverse link power control instruction.

However the prior art does not specifically disclose wherein the transmission power level of the forward link power control instruction is initially set to a reference value; and a transmitter operative to transmit the forward link power control instruction on a forward link control channel., wherein the forward link common channel is shared by a plurality of remote stations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD CHAN whose telephone number is (571)272-0570. The examiner can normally be reached on Mon-Fri 10AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Temesghen Ghebretinsae can be reached on 571-272-3017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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12/27/2012